

Application No. 08/480,908
Amendment dated June 28, 2006
Reply to Office Action of December 28, 2005

REMARKS

Applicant cancelled claims 146, 147, 193, and 194 and amended claims 183 and 186 to further define Applicant's claimed invention. The amendments to claims 183 and 186 were not made in response to the Examiner's Office Action.

I. Withdrawal of request for interference

Applicant withdraws its requests for interference with (1) U.S. Patent No. 5,669,909 to Zdeblick ("Zdeblick '909"); (2) U.S. Patent No. 6,645,206 to Zdeblick ("Zdeblick '206"); and (3) U.S. Patent No. 6,648,916 to McKay et al. ("McKay") as the present application and the Zdeblick and McKay patents are now commonly owned. Further, independent claims 183 and 186 of the present application as currently amended are no longer of identical scope to independent claims 9 and 12 of the Zdeblick '206 patent. Independent claims 193 and 194 of the present application have been cancelled.

II. Remarks addressing the Office Action

In the Office Action, the Examiner rejected claims 1-7, 9, 11-25, 28-31, 33-75, 77-153, 158, 159, 164, 165, 170, 171, 176, 177, and 182-192 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,683,463 to Godefroy et al. ("Godefroy") in view of U.S. Patent No. 5,458,638 to Kuslich ("Kuslich"). Applicant respectfully traverses the rejection.

The Examiner erroneously contends that many elements of the claims are taught by each of the references. The Examiner contends that Godefroy discloses an implant having a body including "a thread (13, 14)," "the body is substantially cylindrical shaped (fig. 1)," and "the thread radius is variable (because of the shape of the body)." (Office Action, paragraph bridging pages 2 and 3). Godefroy teaches an implant having a body with "annular external ribs 13, 14 and 16" that "are preferably toothed," not a thread.

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(Godefroy, col. 2, lines 58-59; Fig. 6). The body of the Godefroy implant is frustoconical, not cylindrical. (Godefroy, col. 3, lines 11-13; Figs. 1 and 2). Godefroy cannot teach a variable thread radius since Godefroy does not teach the use of a thread on the exterior surface of the implant.

The Examiner further contends that Kuslich teaches "threads (26, 28) along truncated walls (fig. 2)." (Office Action, paragraph bridging pages 2-3). Contrary to the Examiner's contention, Kuslich does not teach truncated walls in the threaded embodiment of the implant. The threaded implant of Kuslich is "cylindrical." (See Kuslich, col. 4, lines 7-9; and Fig. 3, a cross sectional view of figure 2 which the Examiner contends shows the truncated sides).

Applicant respectfully submits that the Examiner's stated motivation for combining the disclosure of Godefroy with the disclosure of Kuslich is improper because it does not state why a person of ordinary skill in the art would seek to replace the annular ribs of Godefroy with the threads of Kuslich. (See MPEP § 2143.01, "the Prior Art Must Suggest the Desirability of the Claimed Invention," page 2100-129, col. 2 (May 2004)). The Examiner states that:

"[i]t would have been obvious to one having ordinary skill in the art at the time that the invention was made that the spinal implant disclosed by Godefroy could be fabricated with threads along the truncated side walls, means for closing body wells on the body and threads along the entire walls of the truncated implant. The threads on the truncated planar walls would assist in holding the device in place."

(Office Action, paragraph bridging pages 2 and 3). Godefroy teaches the use of annular ribs 13, 14, and 16 to hold the implant in place. (Godefroy, col. 2, lines 49-51; Fig. 1). None of the Examiner's statements explain why the annular ribs of Godefroy should be replaced by the threads of Kuslich.

Moreover, Godefroy teaches that "external ribs 13, 14 and 16 are preferably toothed to prevent both axial movement in translation and rotation of the implant." (Godefroy, col. 2, lines 58-61 (emphasis added)). Replacing the ribs of Godefroy with

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the threads of Kuslich would assist in the rotation of the implant (Kuslich, col. 4; lines 17-20 and 40-45) and would render the Godefroy implant unsuitable for its intended purpose of resisting rotation of the implant. (See MPEP § 2143.01, "The Proposed Modification Cannot Render the Prior Art Unsatisfactory For its Intended Purpose," page 2100-129, col. 2 (May 2004)).

Independent claim 183, as now amended, recites a fusion device having "a pair of substantially flat portions" and "at least one circumferentially continuous thread extending along a majority of the length of said elongated body." Independent claim 186, as now amended, recites "a pair of substantially flat portions" where the substantially flat portions are "interrupted by said thread." The Examiner states as partial support to his motivation for combining Godefroy with Kuslich that "[t]he threads on the truncated planar walls would assist in holding the device in place." (Office Action, paragraph bridging pages 2 and 3). The Examiner's asserted motivation is opposite to the teaching of Godefroy. As set forth in Godefroy, "[t]he side surfaces 5 and 6 can comprise a flat portion on the outside surface, as shown in FIGS. 1, 4, 6 and 9, this allows the quantity of material from which the implant is made to be slightly reduced." (Godefroy, col. 3, lines 35-39). Placing a thread on the truncated sides of the Godefroy implant adds material to the implant, which is contrary to Godefroy's goal of reducing implant material by having truncated sides. Applicant submits that the Examiner's rejection of claims 1-7, 9, 11-25, 28-31, 33-75, 77-153, 158, 159, 164, 165, 170, 171, 176, 177, and 182-192 under 35 U.S.C. § 103(a) as being unpatentable over Godefroy has been overcome.

The Examiner rejected claims 8, 32, and 76 under 35 U.S.C. § 103(a) as being unpatentable over Godefroy and Kuslich, further in view of U.S. Patent No. 4,904,260 to Ray. Applicant submits that the rejections over claims 8, 32, and 76 are rendered moot at least because they depend from an allowable independent claim, or claims dependent therefrom.

The Examiner rejected dependent claims 154-156, 160-162, 166-168, 172-174, and 178-180 under 35 U.S.C. § 103(a) as being unpatentable over Godefroy, Kuslich,

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and Ray, and further in view of "McKay." The Office Action does not specify what "McKay" reference is being used in the rejection. The Form PTO-892 accompanying the Office Action does not list a patent to McKay. Applicant assumes the Examiner meant one of U.S. Patent No. 5,645,084 to McKay; U.S. Patent No. 5,702,449 to McKay; or U.S. Patent No. 6,648,916 to McKay. Both of the '084 and '449 patents to McKay have an earliest effective filing date of June 7, 1995. The '916 patent to McKay has an earliest effective filing date of December 10, 1997. The present application has an earliest effective filing date of June 7, 1995. Accordingly, none of the McKay patents are prior art to the present application. If the "McKay" reference that the Examiner is applying in the rejection is other than one of the '084; '449; or '916 patents, then Applicant respectfully requests the Examiner to specifically identify the reference by its patent or publication number to permit Applicant the opportunity to fully address the rejection. Applicant submits that the rejection of claims 154-156, 160-162, 166-168, 172-174, and 178-180 under 35 U.S.C. § 103(a) as being unpatentable over Godefroy, Kuslich, and Ray, and further in view of "McKay" has been overcome.

The Examiner rejected claims 193 and 194 under 35 U.S.C. § 103(a) as being unpatentable over Godefroy in view of Kuslich and Ray. Applicant submits that the combination of Godefroy and Kuslich is improper as set forth above. Nonetheless, claims 193 and 194 have been cancelled, rendering the Examiner's rejection moot.

Applicant submits that independent claims 1, 25, 49, 69, 108, 144, 183, and 186 are patentable and that the claims dependent therefrom either directly or indirectly, are patentable at least due to their dependency from an allowable independent claim.

In view of the foregoing remarks, it is respectfully submitted that the claims, as amended, are patentable. Therefore, it is requested that the Examiner reconsider the outstanding rejections in view of the preceding comments. Issuance of a timely Notice of Allowance of the claims is earnestly solicited.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including

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any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-3726.

Respectfully submitted,

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